

## XML Reliabit MDDS Relay Configuration How To

Reliabit, LLC

Version 1.1.0 Reliabit MDDS Relay

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In a large architecture it is cumbersome to use the web interface to create the configuration of each node. Thus, knowing how to configure Reliabit MDDS Relay configuration file by hand with a text editor can save the architect or administrator time. A common configuration file can be copied to all computers in a large architecture. In addition, it is useful to know how to hand edit the configuration file if the node has been configured not to have a web interface.

The Reliabit Multicast Data Distribution Relay Sub System is configured with an Extensible Markup Language (XML) file. This file defines product information and a system architecture(s).

The XML configuration file is checked against a Document Type Definition (DTD) file provided. If the XML file does not match the document definition the MDDS will not start. The DTD can be useful to verify the XML configuration when editing the configuration file with a third party XML editor.

### Locating the mrelay.xml and mrelay.dtd files

On linux the mrelay.xml file is installed into the following location:

```
/opt/reliabit/mdds/etc/mrelay.xml  
/opt/reliabit/mdds/etc/mrelay.dtd
```

On Mac OS X the mdds.xml file is installed into the following location:

```
/Library/reliabit/mdds/etc/mrelay.xml  
/Library/reliabit/mdds/etc/mrelay.dtd
```

### Example XML configuration file:

```
<?xml version="1.0" encoding="UTF-16"?>  
<!DOCTYPE mrelay SYSTEM "/Library/reliabit/mdds/etc/mrelay.dtd">  
<mrelay>  
  <relays logpath="/var/log/mdds.log" name="devlinuxa">  
    <relay action="listen" enable="true" name="relay1" secref="default">  
      <inputtarget multaddr="224.5.5.5" multport="6790" name="input2" ttl="1">  
        <outputtarget loopback="true" name="output2" secure="true" tcpaddr="192.168.1.102"  
          tcpport="6790" tcptimeout="4000000"/>  
      </inputtarget>  
      <inputtarget multaddr="224.5.5.5" multport="6791" name="input3" ttl="1">  
        <outputtarget loopback="true" name="output3" secure="true" tcpaddr="192.168.1.102"  
          tcpport="6791" tcptimeout="4000000"/>  
      </inputtarget>  
      <inputtarget multaddr="224.5.5.5" multport="6792" name="input4" ttl="1">  
        <outputtarget loopback="true" name="output4" secure="true" tcpaddr="192.168.1.102"  
          tcpport="6792" tcptimeout="4000000"/>  
      </inputtarget>  
      <inputtarget multaddr="224.5.5.5" multport="6789" name="input1" ttl="1">  
        <outputtarget loopback="true" name="output1" secure="true" tcpaddr="192.168.1.102"  
          tcpport="6789" tcptimeout="4000000"/>  
      </inputtarget>  
    </relay>  
    <security certpath="/opt/reliabit/mdds/keys/mycert.crt"  
      keypath="/opt/reliabit/mdds/keys/priv.key" name="default" passphrase="cGFzc3dvcmQ="/>  
  </relays>  
</mrelay>
```

### Definitions of elements and attributes

#### Element: security

The security element defines a collection of security related information. The relay will use this information to create an SSL v23 socket connection.

#### Attributes:

- name:** The id name of the element. Used with references and displays.
- certfilepath:** A path to a certificate file to be used with SSL connections.

**keyfilepath:** A path to a key file to be used with SSL connections.  
**passphrase:** A password phrase used to authenticate SSL socket connections.

**Element: outputtarget**

Contains network information needed by the relay to connect to another relay.

**Attributes:**

**name:** An arbitrary name for an output. Used in display.  
**tcpaddr:** If the relay is in "emit" mode this represents an ip address for a TCP/IP client .  
If the relay is in "listen" mode it serves as a bind address.  
**tcpport:** The port used to communicate to and from relays.  
**tcptimeout:** A timeout in milliseconds for tcp connections. Should be greater than 3000 ms.  
**secure:** Indicates if the connections between the relays is an SSL23 connection.  
**loopback:** Cause the relay in "listen" mode to also rebroadcast locally.

**Element: inputtarget**

Contains information necessary for capturing and broadcasting multicast data.

**Attributes:**

**name:** The name of the element used for display purposes.  
**multaddr:** A class D IP address used to capture or emit a multicast broadcast.  
**multport:** The port used to capture or emit a multicast broadcast.  
**ttl:** The ttl used when the relay re-broadcasts the multicast data.

**Element: relay**

Creates a relay instance that encapsulates inputtarget and outputtarget elements.

**Attributes:**

**name:** The name of the relay used for display purposes.  
**secref:** A reference to a security element. Used for secure connections.  
**action:** "emit" or "listen". Determines if the relay is receiving data ( emit ) or  
rebroadcasting data ( listen ).  
**enable:** "true" or "false" . Enables or disables the relay and its associated inputs  
and outputs on restart.

**Element: relays**

An element that encapsulates relay, inputtarget and outputtarget elements. Specifies  
a log path that the relay should use.

**Attributes:**

**name:** *The computer host name the relay should run on.*  
**logpath:** A path to a log file.